

# Asthma in Utah



## Burden Report 2007



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The Asthma in Utah 2007 report utilizes data from various sources to provide a clear picture of the burden of asthma in the state. This report is intended to assist all those working to lessen this burden to better understand the situation in Utah. With enhanced understanding through data, individuals and families who are affected by asthma can be assisted to better manage their

situations and prevention of asthma episodes can be accomplished where it is possible. As strategies to address the asthma burden are based upon sound information, the vision of the Utah Asthma Task Force will be realized.

## Executive Summary

### Background

Asthma is a serious personal and public health issue that has far-reaching medical, economic and psychosocial implications. The burden of asthma can be seen in the number of asthma-related medical events, including emergency department visits, hospitalizations and deaths. Furthermore, this burden is found in treatment costs associated with asthma, the number of school and work days missed, and loss of sleep or limitation of life activities. Ultimately, persons with asthma report a lower quality of life when compared to those without asthma. This reality underscores the urgent need for a clear understanding of this burden and the steps that can be taken to lessen it.

Recognizing the growing burden of asthma on Utah citizens, the Utah Department of Health applied for funding from the Centers for Disease Control and Prevention (CDC) in 2001. The cooperative funding agreement is designed to allow states to develop the capacity to address asthma from a public health perspective. Utah received funding in 2001 and created the Utah Asthma Program and Asthma Task Force. Continued funding is anticipated through a renewal of the cooperative agreement with the CDC in 2007, with hopes of expanding the capacity of the Utah Asthma Task Force in the future.

The goals of the Utah Asthma Program include enhancing infrastructure to address asthma from a public health perspective, maintenance of an asthma surveillance system, continuing to build partnerships within the community, and developing population-based strategies to improve asthma care and management. All aspects of these efforts are contained in the Utah Asthma Plan, which was revised in 2006-2007. In particular, the Asthma in Utah report will connect with key aspects of the Utah Asthma Plan by providing baseline data for decision-making processes.

# Executive Summary

## Key Findings

The following findings highlight some of the areas essential to understanding the effects of asthma on the Utah population.

The age-adjusted prevalence rates for persons 18 and over with current asthma in 2006 were 8.3% for Utah compared to 8.2% nationally.

In 2006, females in the 35-49 age range (10.9%) and males in the 0-17 age range (7.5%) had the highest prevalence of current asthma.

During 2001-2005, males 0-17 years old had the highest rate (39.2 per 10,000 persons) of emergency department visits of any age group for males and females, nearly twice as high as the next highest rate.

There were no significant differences between the hospitalization rates for asthma across Utah's 12 local health districts (generally classified as four urban and eight rural) for the time period 2001-2005.

Of all adults who suffer from asthma, 13.1% had at least seven or fewer days in the past 12 months when their work or usual activities were limited due to asthma during 2003-2006.

In 2006, the prevalence of asthma among youth ages 0 through 17 was 7.5% for males and 5.5% for females.

From 2001-2005, deaths due to asthma were nearly two times higher among females than males for most age groups.

In 2006, asthma prevalence was highest (11.5%) among those with incomes less than \$20,000 per year; all prevalence rates were generally the same as the overall state rate for all other income groups.

## Executive Summary

### Asthma Problem at a Glance

Asthma is a chronic condition that involves increased difficulty in breathing due to airway inflammation and constriction caused by sensitivity to a variety of environmental triggers. Exposure to a trigger (e.g., cold air, cigarette smoke) causes the airways to produce excessive mucus and the muscles to constrict. Such airway obstruction can usually be reversed with treatment and may also reverse spontaneously after removal of the trigger or from the triggering situation. Signs of asthma include coughing, wheezing (whistling or rattling sound while breathing), trouble catching one's breath, dizziness, and tightness in the chest.

The periodic breathing problems caused by asthma are called an “asthma attack” or “asthma episode.” An asthma attack may require medication or some other form of treatment for normal breathing to be restored. In many cases, there are warning signs for asthma attacks that can alert the individual before an episode actually occurs. Knowing the symptoms of asthma and treating those symptoms early on can help prevent more serious episodes from occurring or from occurring on a frequent basis.

Asthma “triggers” can set off asthma episodes and include: cold or dry air, dust, pollen, pollution, cigarette smoke, stress, or physical activity.

The reality of the burden of asthma on the population in Utah has become more apparent over the past five years. Data collected through the asthma surveillance system and interaction with partners on the Utah Asthma Task Force have provided greater clarity about the problem of asthma in Utah families.



## Introduction

In October 2006, members of the Utah Asthma Task Force convened a workshop to make important revisions to the Utah Asthma Plan. They identified areas of interest and developed objectives and strategies to reduce hospitalizations due to asthma and the overall burden of

asthma in Utah. In particular, they have focused their efforts further on populations with poorly controlled asthma. Goals and objectives for the revised asthma plan will more closely address these populations for the future.

## Utah Asthma Plan

The vision statement was updated by the Task Force and reads as follows:

*Utah communities working together to improve the quality of life for people with asthma.*

The following work groups and mission statements were created to fulfill this vision:

### Asthma Management:

To assist people with asthma to improve their quality of life by providing the tools and resources necessary to maximize and promote wellness.

### Health Systems:

To assist the health care system in providing access to appropriate care as defined by National Asthma Education and Prevention Program (NAEPP) Guidelines.

### Population Issues:

Within population systems, provide culturally-appropriate assistance for those affected by asthma so they can better manage the disease within their social and physical environments.

# Utah Asthma Plan

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## Risk Factors:

Identify risk factors and promote intervention strategies to reduce those risks in Utah.

## Data and Monitoring:

To assure availability of quality data to guide interventions that improve the quality of life for people with asthma.

The Asthma in Utah Burden Report 2007 contains asthma surveillance data that will help guide interventions to achieve the goals and objectives of the Utah Asthma Plan.

## Introduction

Healthy People 2010 (HP2010) is a comprehensive set of disease prevention and health promotion objectives for the nation. The Utah Asthma Program and Task Force have worked over the past five years to achieve the objectives contained in HP2010. This effort will continue

and the burden report is part of the ongoing information needed to track such measures. The asthma objectives are found below.

## Healthy People 2010 Objectives

- 24-1. Reduce asthma deaths.
- 24-2. Reduce hospitalizations for asthma.
- 24-3. Reduce hospital emergency department visits for asthma.
- 24-4. Reduce activity limitations among persons with asthma.
- 24-5. Reduce the number of school or work days missed by persons with asthma due to asthma.
- 24-6. Increase the proportion of persons with asthma who receive formal patient education, including information about community and self-help resources, as an essential part of the management of their condition.
- 24-7. Increase the proportion of persons with asthma who receive appropriate asthma care according to National Asthma Education and Prevention Program (NAEPP) Guidelines.



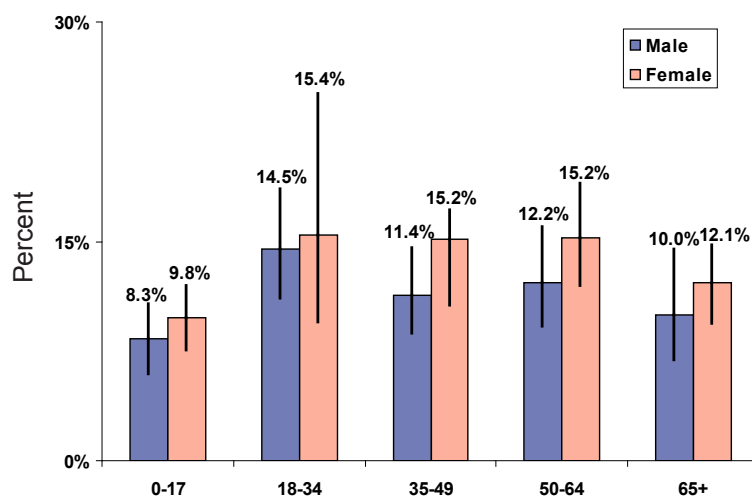


## Asthma Prevalence

Asthma prevalence is one of the foremost indicators to measure and track the burden of the disease among population groups. Tracking asthma prevalence across age groups, geographic areas, income and education levels, sex and differing racial and ethnic groups makes it possible to target the most vulnerable sections of

the population. For example, the prevalence of asthma among the American Indian population is 10.0%, among Asians is 2.0%, and among Blacks is 5.1%, compared to 8.0% for White non-Hispanics (BRFSS, age-adjusted rates, adults 18 and over, 2002-2006 combined data).

Figure 1. Prevalence of Asthma by Age and Sex for Those Who Ever Had Asthma, 2006.

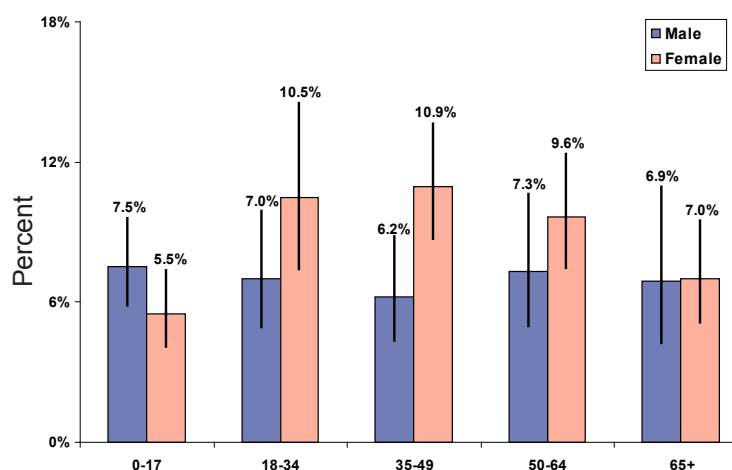


Source: Behavioral Risk Factor Surveillance System, 2006, crude rates.

Prevalence rates for those who have ever been diagnosed with asthma over the lifespan are higher for females than males in every age group. Those in the 18-34 age group show the highest prevalence of any group for both males and females having been diagnosed with asthma.

# Asthma Prevalence

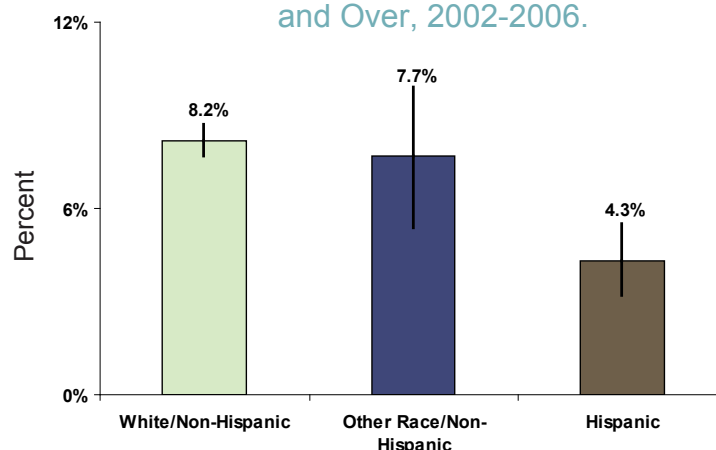
Figure 2. Prevalence of Current Asthma by Age and Sex, 2006.



Source: Behavioral Risk Factor Surveillance System, 2006, crude rates.

Current prevalence of asthma is defined as those who responded that they had ever been diagnosed by a doctor or other health professional as having asthma and who reported that they currently have asthma. Males appeared to have a higher rate only in the 0-17 age group. Thereafter, females maintain a higher rate throughout the lifespan.

Figure 3. Prevalence of Asthma by Ethnicity, Adults 18 and Over, 2002-2006.

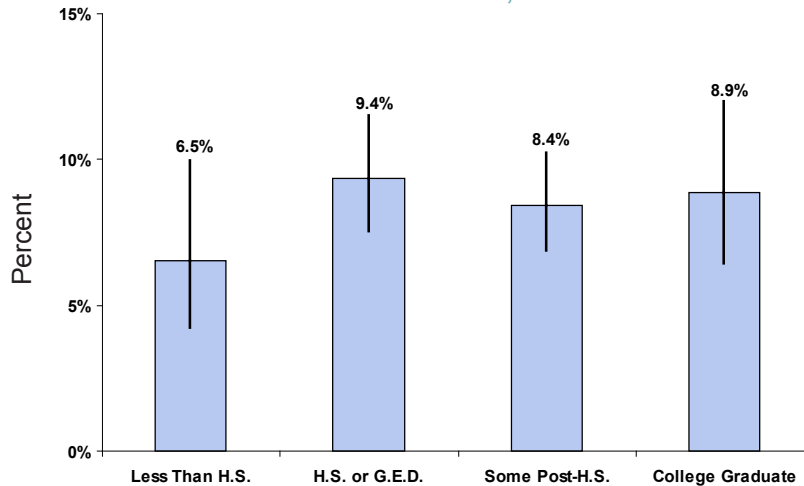


Source: Behavioral Risk Factor Surveillance System, 2006, crude rates.

Survey participants who responded that they were Hispanic had half the rate (4.3%) of asthma compared to White/non-Hispanic adults (8.2%).

## Asthma Prevalence

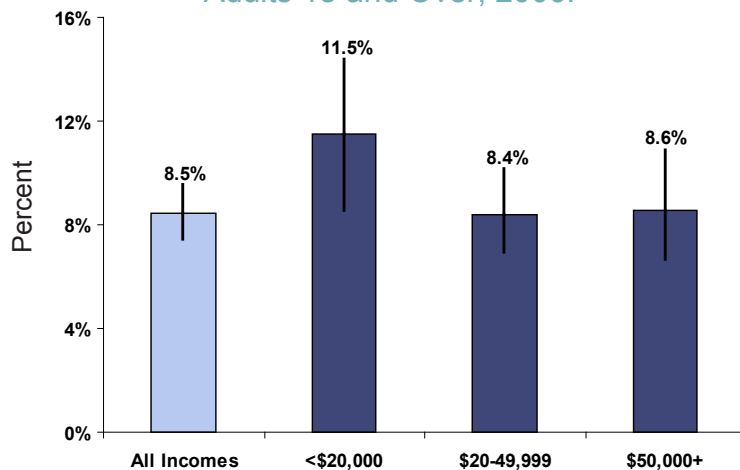
Figure 4. Prevalence of Asthma by Level of Education, Adults 18 and Over, 2006.



Source: Behavioral Risk Factor Surveillance System, 2006, age-adjusted rates.

Asthma prevalence fluctuates by education level. While the chronic nature of asthma affects those of all educational backgrounds, there is a lower prevalence among those with less than a high school education.

Figure 5. Prevalence of Asthma by Level of Income, Adults 18 and Over, 2006.

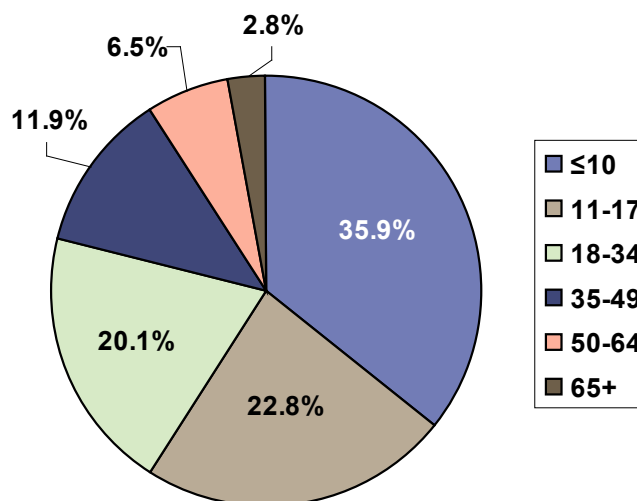


Source: Behavioral Risk Factor Surveillance System, 2006, age-adjusted rates.

Asthma is more prevalent among those who reported having a household income of less than \$20,000 per year.

## Asthma Prevalence

Figure 6. Prevalence of Lifetime Asthma by Age When First Told They Had Asthma, 2003-2006.

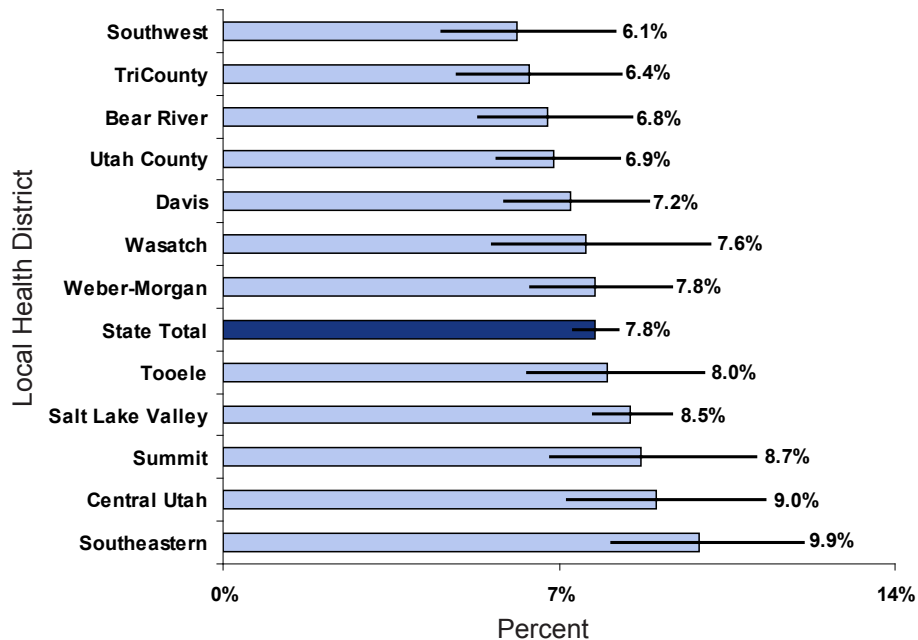


Source: Behavioral Risk Factor Surveillance System, 2006, crude rates.

Slightly more than one-third (35.9%) of those who have been diagnosed with asthma were told they had asthma when they were 10 years old or younger. The majority (58.7%) said they were diagnosed with asthma by age 17. For all those who have been diagnosed with asthma, more than three-quarters (78.8%) were told they had asthma by age 34.

## Asthma Prevalence

Figure 7. Asthma Prevalence for Adults 18 and Over by Local Health District, 2003-2006 Combined.



Source: Behavioral Risk Factor Surveillance System, combined years 2003-2006, age-adjusted rates.

The asthma prevalence rates by local health district (LHD) ranged from a low of 6.1% in Southwest LHD to a high of 9.9% in Southeastern LHD; the state rate was 7.8%. These rates are not statistically different from each other. The relatively low prevalence rate of adult asthma and the limited sample size for each local health district could be masking any true differences at the local health district level.



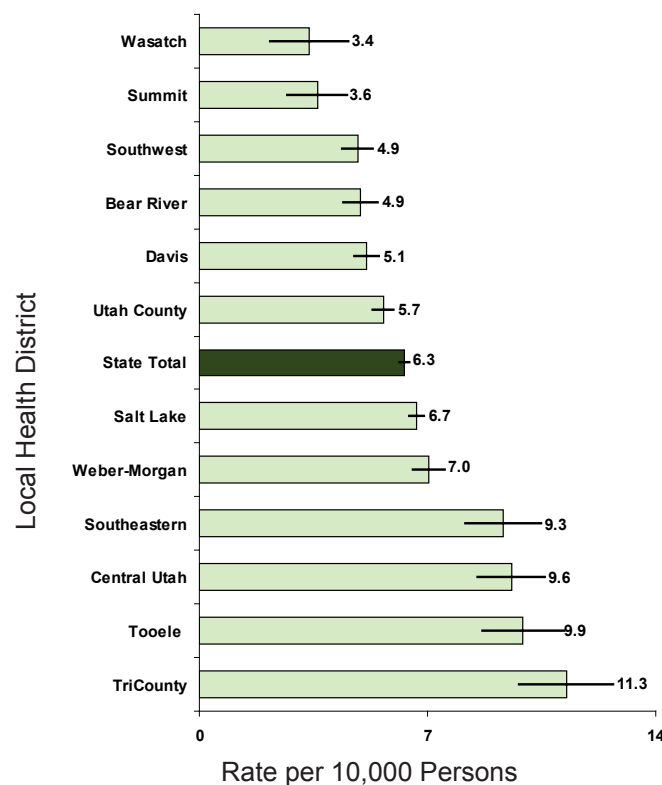
# Asthma Morbidity

Asthma morbidity can largely be seen in the visits of asthma sufferers to the emergency department (ED) as well as in hospitalizations resulting from asthma episodes or attacks. This area is often where the most apparent realities of the burden of asthma can be seen in individuals with poorly controlled asthma. Data are taken

from the Utah Inpatient Hospital Discharge Database and the Utah Emergency Department Encounter Database. Because hospitalizations for asthma are often part of ED visits (“treat and admit” to hospital), only “treat and release” encounters were included in the ED data.

## Morbidity Indicators

Figure 8. Hospital Discharges for Asthma by Local Health District, Utah, 2001-2005.

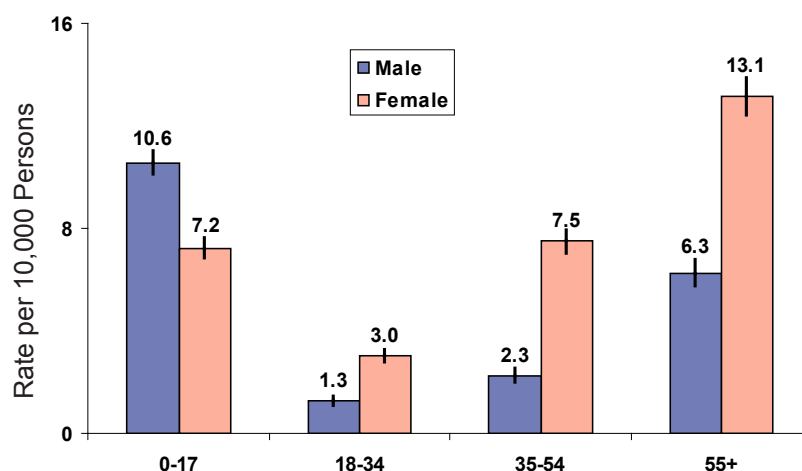


Source: Utah Hospital Discharge Database, 2001-2005, Age-adjusted, ICD-9 Code 493.

The 2001-2005 asthma hospitalization discharge rate for Utah residents was 6.3 per 10,000. Residents from the TriCounty Health District had the highest asthma hospitalization rate of 11.3 per 10,000 residents followed by Tooele Health District with a rate of 9.9 per 10,000. Wasatch County residents experienced the lowest rate of hospital discharges due to asthma (3.4/10,000 residents).

## Morbidity

Figure 9. Utah Asthma Hospitalizations by Age and Sex, 2001-2005.



Source: Utah Hospital Discharge Database, 2001-2005, ICD Code 493. Note: An inpatient discharge occurs when a person who was admitted to a hospital leaves that hospital. A person who has been hospitalized more than once in a given calendar year will be counted multiple times as a discharge and included more than once in the hospital inpatient discharge data set; thus, the numbers in this report are for discharges, not persons.

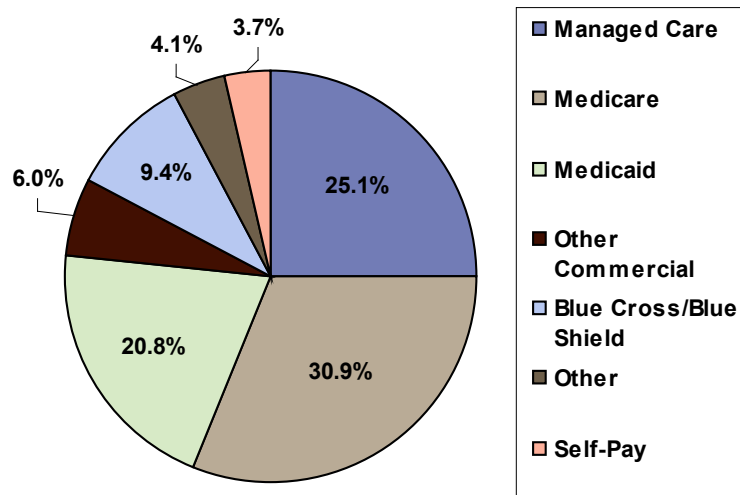
The number of hospitalizations due to asthma in Utah increased 13.4% in the last decade, from 1,366 in 1996 to 1,549 in 2005. However, asthma hospitalization rates per 10,000 declined slightly from 6.7 per 10,000 in 1996 to 6.1 per 10,000 in 2005.

For the years 2001–2005, females in the 55+ age group had the highest asthma hospitalization crude rate of 13.1/10,000 persons, followed by males in the 0-4 age group with a rate of 10.6/10,000 persons.

During 2001–2005, Utah females had higher crude and age-adjusted asthma hospitalization rates at 7.1/10,000 and 7.5/10,000 when compared to males at 5.2/10,000 and 5.0/10,000, respectively.



Figure 10. Asthma Hospitalization Charges by Primary Source of Payment, Utah, 2001-2005.

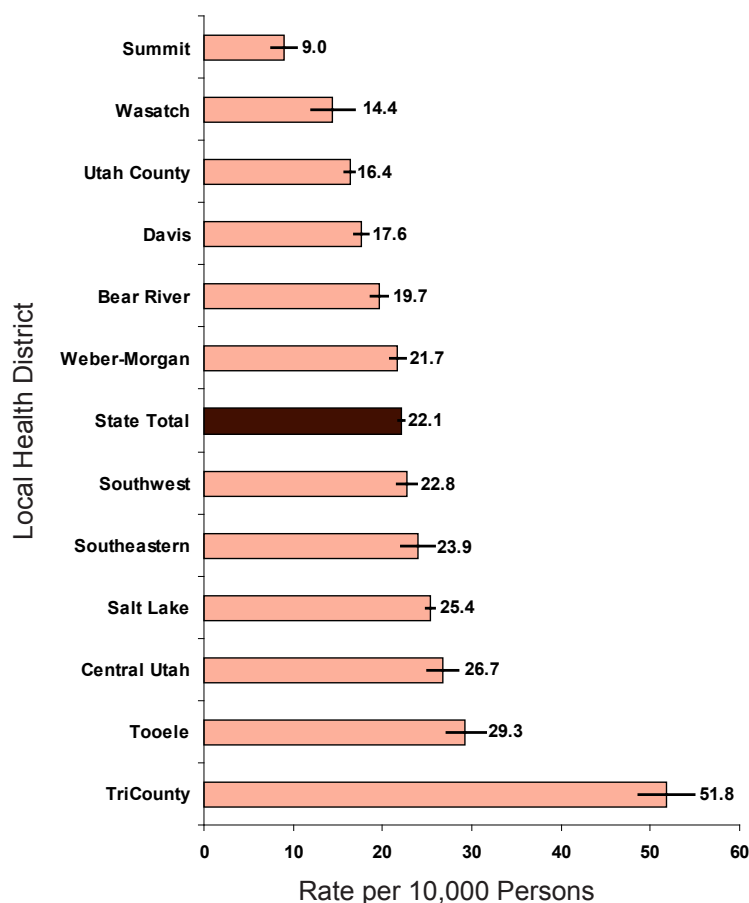


Source: Utah Hospital Discharge Database, 2001-2005, ICD Code 493

A review of insurance payments for asthma hospitalizations (2001-2005, combined data) shows that managed care organizations, Medicare, and Medicaid made up the largest portion of payment sources. Combined they covered more than three-quarters (76.8%) of all insurance payments for asthma hospitalizations.

# Morbidity

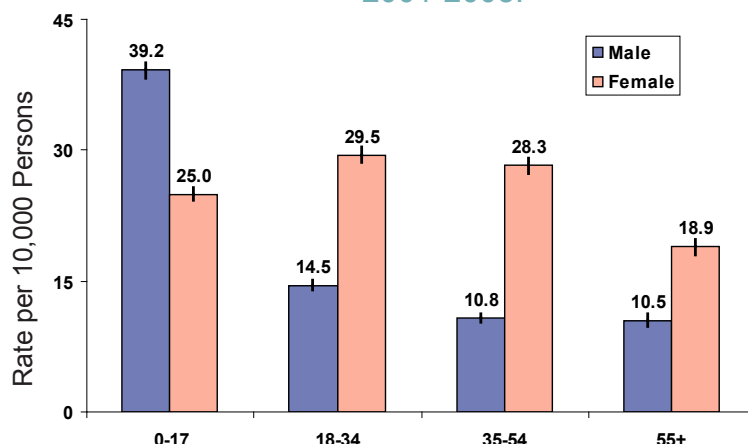
Figure 11. Age-adjusted Emergency Department Encounters for Asthma by Local Health District, Utah, 2001-2005.



Source: Utah Emergency Department Encounter Database, 2001-2005, ICD Code 493. Note: ED data include only those who were treated and released but not admitted as inpatients.

The 2001-2005 asthma emergency department encounter rate for Utah residents was 22.1 per 10,000 persons. TriCounty Health District had the highest asthma ED encounter rate of 51.8 per 10,000 persons, followed by Tooele Health District with a rate of 29.3 per 10,000. Summit County experienced the lowest rate of ED encounters due to asthma (9.0/10,000 persons). Three rural districts and two urban districts had lower rates than that of the state. One urban and three rural districts had rates higher than the state average.

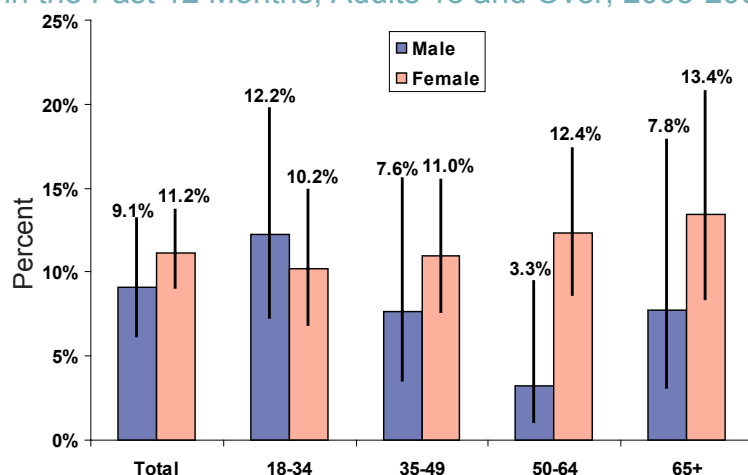
Figure 12. Emergency Department Encounters by Age and Sex, 2001-2005.



Source: Utah Emergency Department Encounter Database, ICD Code 493, 2001-2005.

From 2001 to 2005, ED encounter rates per 10,000 persons remained stable at approximately 23/10,000 persons. Male children ages 0-17 had the highest ED encounter rate for asthma at 39.2/10,000 persons, followed by females ages 18-34, with a rate of 29.5/10,000 persons.

Figure 13. Those With Asthma Who Had at Least One Visit to an Emergency Department or Urgent Care Center in the Past 12 Months, Adults 18 and Over, 2003-2006.

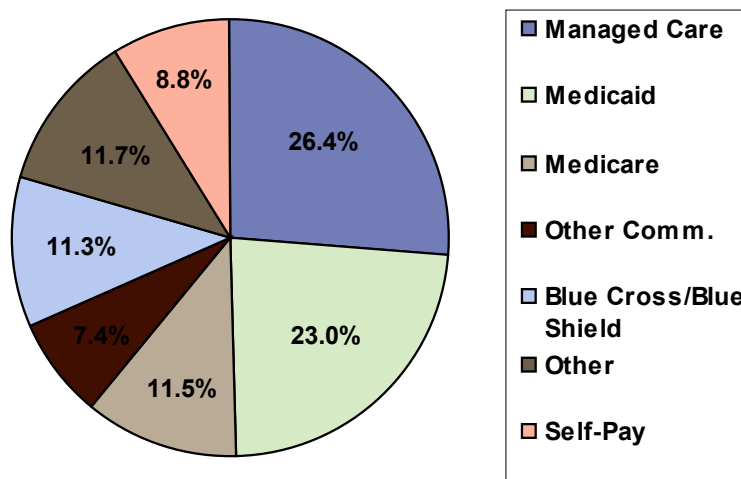


Source: Behavioral Risk Factor Surveillance System, 2003-2006, crude rates.

BRFSS survey data on visits to an emergency department show similar patterns as ED encounter rates collected from the Utah ED Encounter Database.

## Morbidity

Figure 14. Emergency Department Encounter Charges by Primary Source of Payment, Utah, 2001-2005.



Source: Utah Emergency Department Encounter Database, ICD Code 493, 2001-2005.

During the five-year period from 2001–2005, Utah females had higher emergency department encounter rates for asthma at 26.1/10,000 (crude) and 25.6/10,000 (age-adjusted) when compared to males (21.0/10,000 [crude] and 18.6/10,000 [age-adjusted]). A review of emergency department encounters for asthma from 2001 to 2005 revealed the average charge per visit was \$517.61. The leading payment source for emergency department encounters during the period was Managed Care organizations (26.4%), followed by Medicaid (23.0%) and Medicare (11.5%).

These three payment groups made up 60.9% of the total payments during the time period. Regarding ED visits for asthma, patients themselves (self-pay) comprised 8.8% of sources compared to 3.7% for hospitalizations.

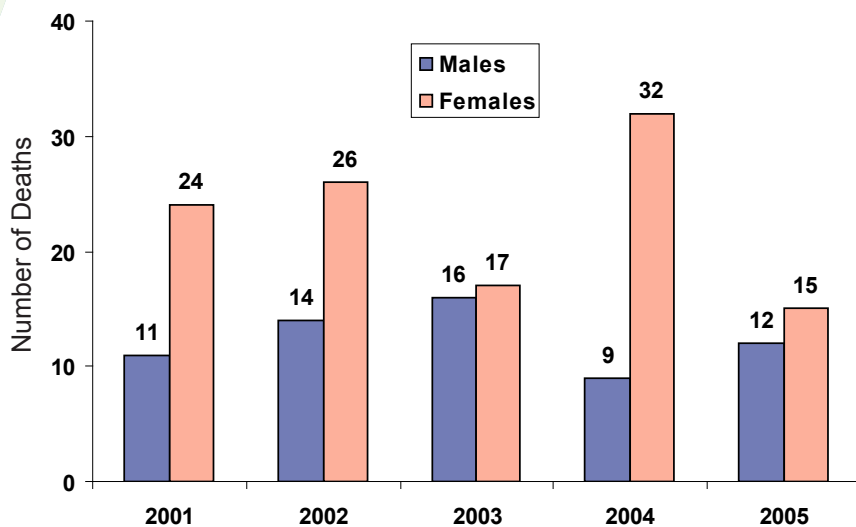
## Asthma Mortality

Important disparities come to light when studying deaths due to asthma. During the five-year period 2001-2005, asthma was listed as the primary cause of death for 176 individuals; females (114) were nearly twice as likely as males (62) to die from asthma (see Figure 15 below). Though

these deaths represent a small portion of total mortality for all chronic diseases, the importance of reducing the number of asthma-related deaths is underscored by increases in prevalence across Utah.

## Asthma-related Deaths

Figure 15. Number of Asthma-related Deaths by Sex, Utah, 2001-2005.

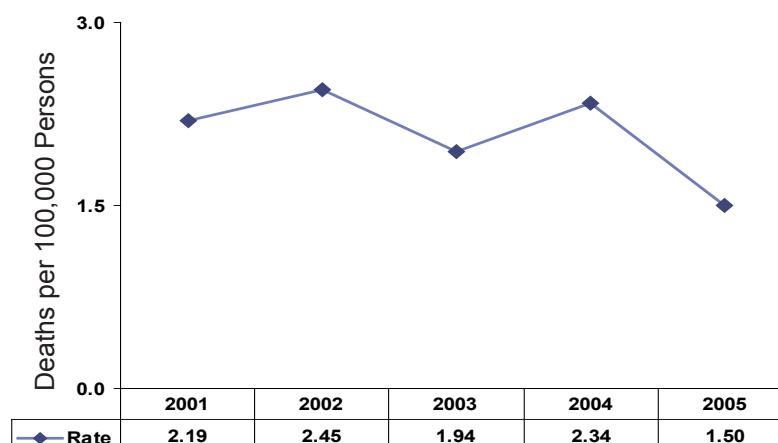


Source: Utah Death Certificate Database, 2001-2005, ICD-10 code J45.

During the five-year period 2001-2005, Utah's total number of deaths due to asthma decreased from 35 in 2001 to 27 in 2005. For each individual year within that time period, more females died due to asthma compared to males.

# Asthma Mortality

Figure 16. Asthma Mortality Rates, Utah 2001-2005,  
Utah Residents, All Ages



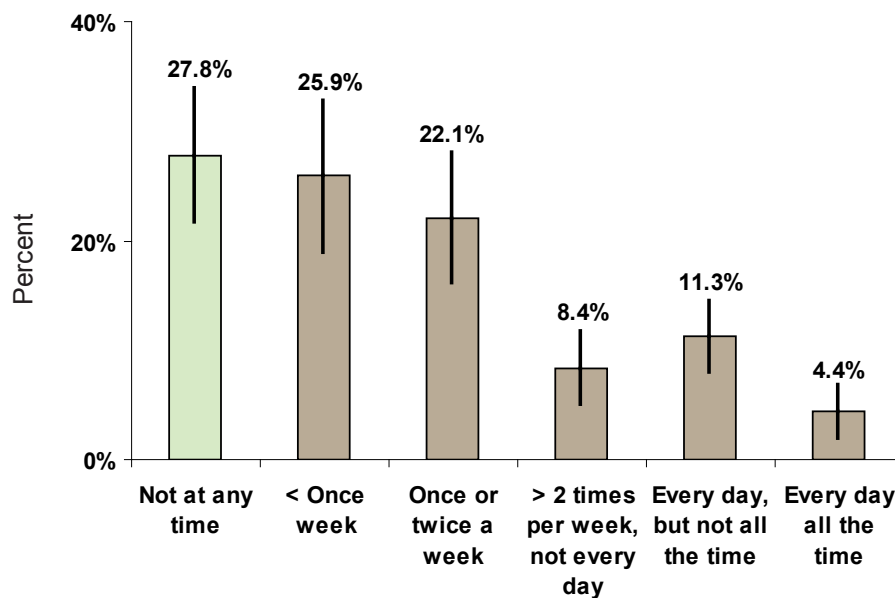
Source: Utah Death Certificate Database, ICD Code J45, 2001-2005, Age-adjusted rates.

During the five-year period 2001-2005, Utah's age-adjusted asthma mortality rate decreased from 2.1 per 100,000 persons to 1.5 per 100,000 persons. Asthma mortality rates tend to increase with age. Utah children 0-14 years had a mortality rate of 0.15 per 100,000 persons between 2001-2005, while Utahns 65 and older had a mortality rate of 13.0 per 100,000 persons. It should be noted that Chronic Obstructive Pulmonary Disease (COPD) may be misdiagnosed as asthma. Therefore, the number of asthma-related deaths in older adults may be slightly overrepresented.

## Asthma Management and Care

In connection with the Utah Asthma Plan, data in the Asthma Management and Care section support activities in regard to the following objectives: “Increase awareness of how asthma affects daily life activities” and “Improve access to asthma management systems.”

Figure 17. Frequency of Asthma Symptoms Over the Past 30 Days, Utah Adults 18 and Over, 2006.

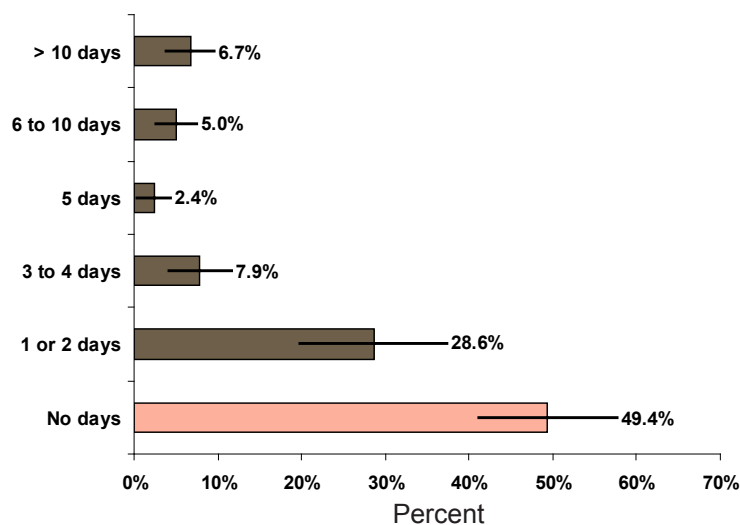


Source: Behavioral Risk Factor Surveillance System, 2006, crude rates.

Of those who suffer from symptoms of asthma, one-quarter (25.9%) reported they have symptoms less than once per week and a little more than one-fifth (22.1%) said they have these symptoms once or twice per week. Just over one-quarter (27.8%) responded that they had not suffered symptoms of asthma at any time in the past month.

## Asthma Management and Care

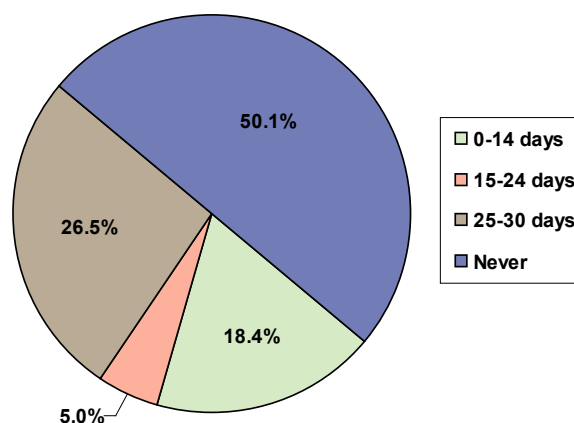
Figure 18. Number of Days of Lost Sleep in the Past 30 Days Due to Symptoms of Asthma, Utah Adults 18 and Over, 2006.



Source: Behavioral Risk Factor Surveillance System, 2006, crude rates.

About one-quarter of respondents (28.6%) reported they had lost 1 or 2 days of sleep in the past 30 days due to symptoms of asthma. Just over one-fifth (22.0%) had lost 3 or more days of sleep.

Figure 19. Frequency of Taking Asthma Medication in the Past 30 Days to Prevent an Asthma Attack, Utah Adults 18 and Over, 2006.



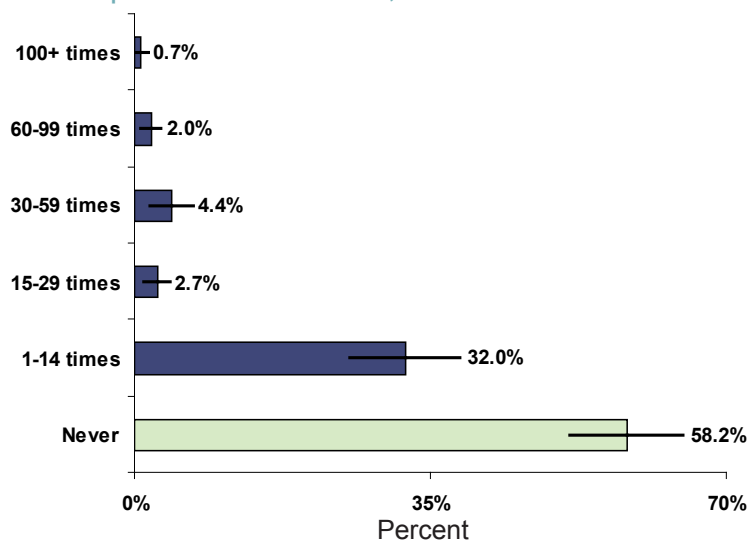
Source: Behavioral Risk Factor Surveillance System, 2006, crude rates.

Half of respondents (50.1%) reported they did not take medication over the past 30 days to prevent an asthma attack. About one-fourth (26.5%) took medication throughout the entire month (i.e., 25-30 days) to prevent an attack.



## Asthma Management and Care

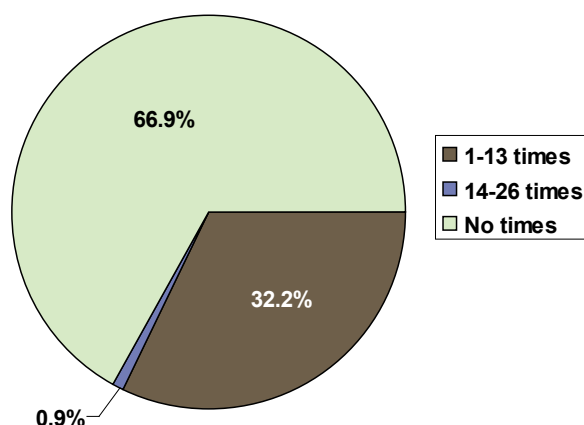
Figure 20. Frequency of Prescription Inhaler Use in the Past 30 Days to Stop an Asthma Attack, Utah Adults 18 and Over, 2006.



Source: Behavioral Risk Factor Surveillance System, 2006, crude rates.

The majority of those with asthma (58.2%) reported they never used an inhaler in the past 30 days to stop an asthma attack. About one-third (32.0%) used an inhaler 1-14 times; 9.8% used an inhaler 15 or more times during the month to stop an attack.

Figure 21. Times in the Past 12 Months to See a Doctor or Other Health Professional for Urgent Treatment of Worsening Asthma Symptoms, Utah Adults 18 and Over, 2006.

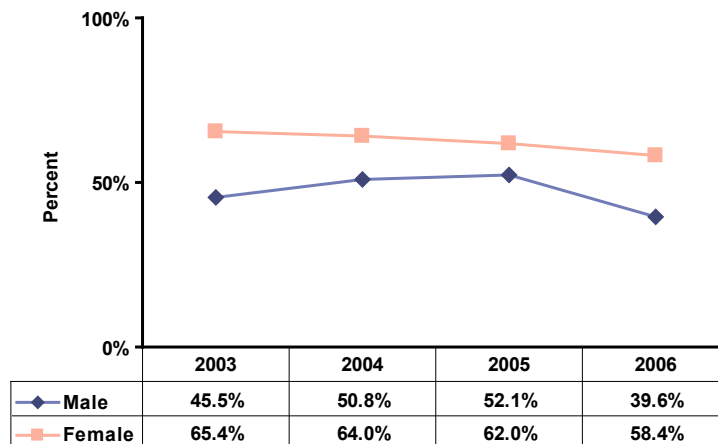


Source: Behavioral Risk Factor Surveillance System, 2006, crude rates.

Two-thirds (66.9%) of those affected by asthma did not see a doctor or other health professional in the past 12 months for urgent treatment of worsening symptoms of asthma. One-third (32.2%) saw a health professional between 1 and 13 times throughout the year.

## Asthma Management and Care

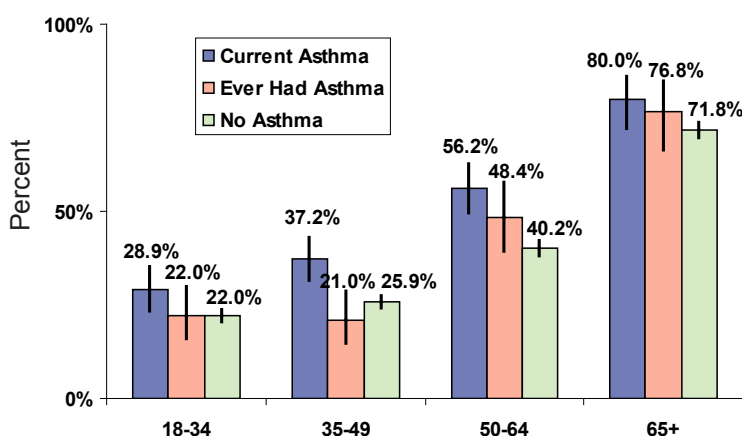
Figure 22. Those With Asthma Who Had an Episode of Asthma or Attack in the Past 12 Months, Utah Adults 18 and Over, 2003-2006.



Source: Behavioral Risk Factor Surveillance System, 2003-2006, age-adjusted rates.

The proportion of females with asthma who had an episode of asthma or asthma attack in the past year has steadily declined as reported from 2003 to 2006. Males reported a lower rate of asthma episodes or attacks during the same time period. This pattern is indicative of ED encounters by sex for adults 18 and over.

Figure 23. Those Who Reported Influenza Vaccination By Asthma Status, Utah Adults 18 and Over, 2004-2006.



Source: Behavioral Risk Factor Surveillance System, 2006, crude rates.

A higher proportion of those with current asthma received an influenza vaccination over their lifespan than those with “lifetime” (ever had) asthma or no asthma. People in the 50+ age group received more vaccines than those in the 18-49 age group.

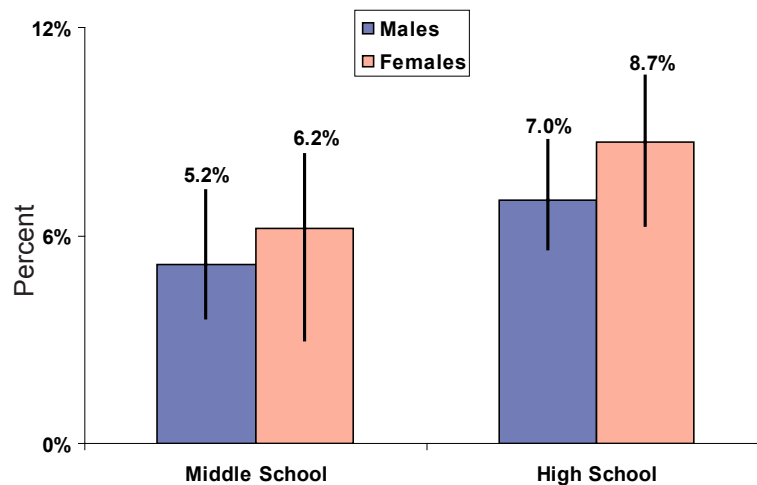
## Asthma in Youth

One of the groups most significantly affected by asthma is youth ages 0-17. Asthma in youth has become a source of increasing concern and attention due to challenges with asthma management at school and home. Education of youth, their parents, and school personnel is part of

the efforts to curb asthma attacks, emergency department visits, and hospitalizations. The following data are part of survey efforts to better understand the issues youth in middle and high schools are facing.

## Youth Tobacco Survey

Figure 24. Prevalence of Current Asthma Among Middle School Students by Sex, Utah, 2003 and 2005 Combined.



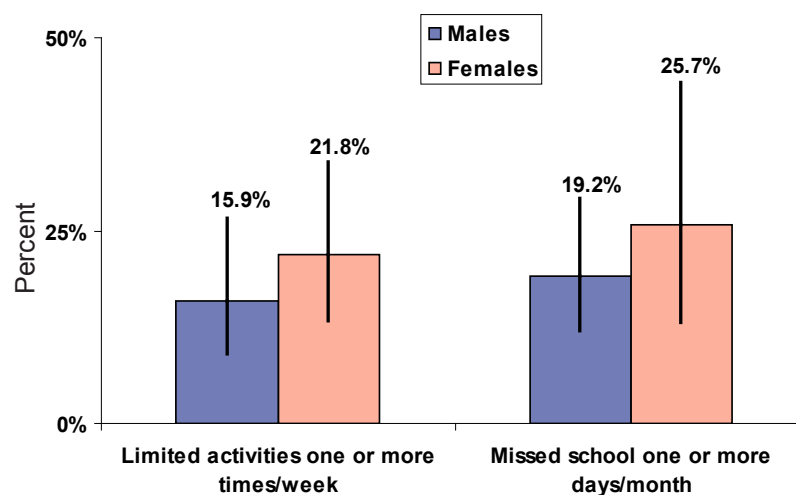
Current asthma includes those with doctor-diagnosed asthma who had an asthma attack in the past 12 months.

Source: Utah Youth Tobacco Survey.

Overall prevalence of asthma was higher for high school students than their younger counterparts in middle school, regardless of sex. Of note is the increase in prevalence of current asthma among females in middle school and high school; high school females were more likely to report current asthma than middle school females.

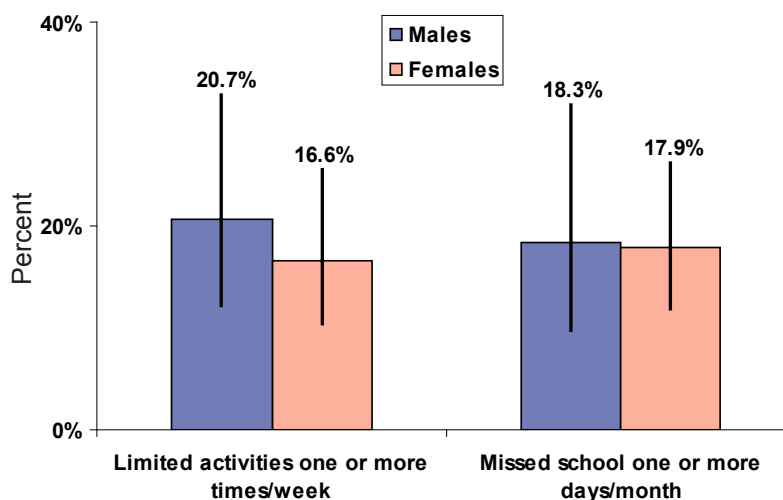
# Youth Tobacco Survey

Figure 25. Percentage of Middle School Students With Current Asthma Who Experienced Complications/Limitations by Sex, Utah, 2003 and 2005 Combined.



Current asthma includes those with doctor-diagnosed asthma who had an asthma attack in the past 12 months. Source: Utah Youth Tobacco Survey.

Figure 26. Percentage of High School Students With Current Asthma Who Experienced Complications/Limitations by Sex, Utah, 2003 and 2005 Combined.

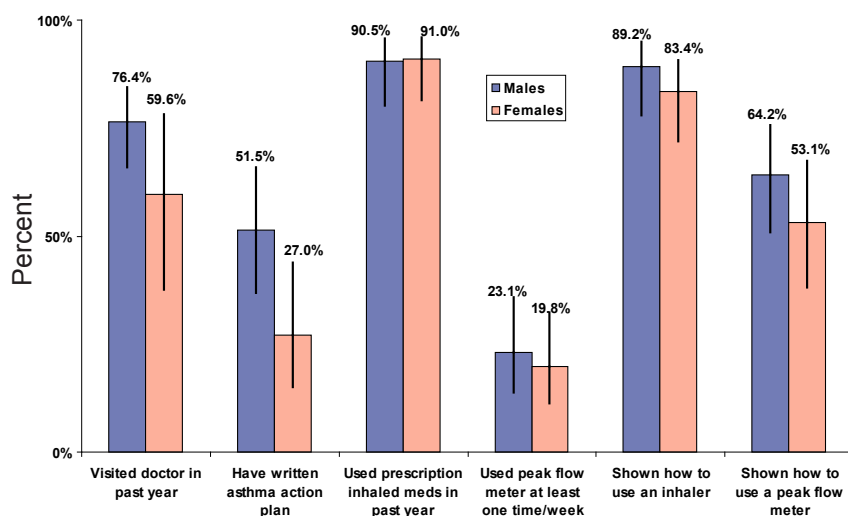


Current asthma includes those with doctor-diagnosed asthma who had an asthma attack in the past 12 months. Source: Utah Youth Tobacco Survey.

Middle school females were more likely to report having experienced activity limitations due to asthma compared to their male equivalents. However, among high school students, males were more likely to report activity limitation. These differences were not statistically significant.

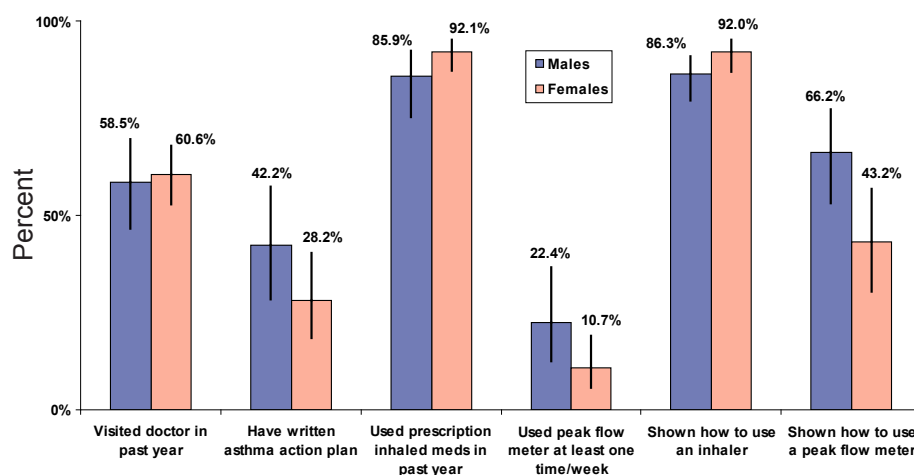
## Youth Tobacco Survey

Figure 27. Percentage of Asthma Management Activities Among Middle School Students With Current Asthma by Sex, Utah, 2003 and 2005 Combined.



Current asthma includes those with doctor-diagnosed asthma who had an asthma attack in the past 12 months. Source: Utah Youth Tobacco Survey.

Figure 28. Percentage of Asthma Management Activities Among High School Students With Current Asthma by Sex, Utah, 2003 and 2005 Combined.

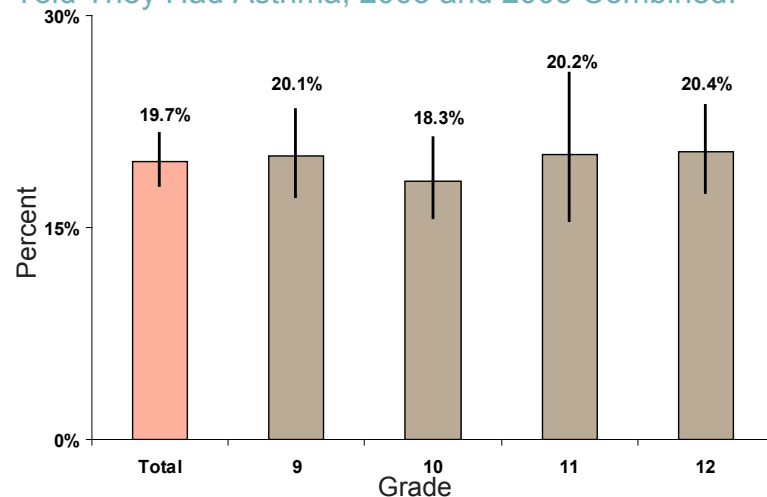


Current asthma includes those with doctor-diagnosed asthma who had an asthma attack in the past 12 months. Source: Utah Youth Tobacco Survey.

There were no apparent differences between middle and high school students' methods for managing their current asthma.

# Youth Risk Behavior Survey

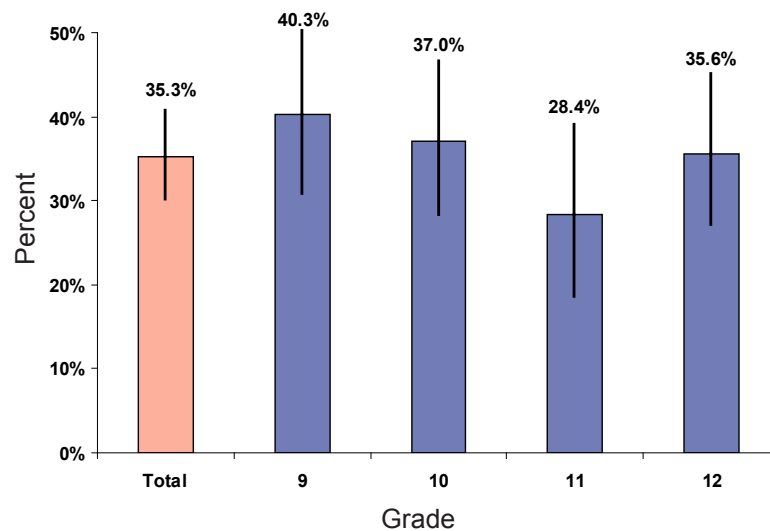
Figure 29. Percentage of High School Students Who Had Ever Been Told They Had Asthma, 2003 and 2005 Combined.



Source: Youth Risk Behavior Survey, 2005.

Nearly one in five high school students reported ever having been told they had asthma by a doctor or nurse.

Figure 30. Percentage of Students Who Reported Ever Being Told They Had Asthma, Who Experienced an Asthma Episode or Attack During the Past 12 Months, 2003 and 2005 Combined.



Source: Youth Risk Behavior Survey, 2005.

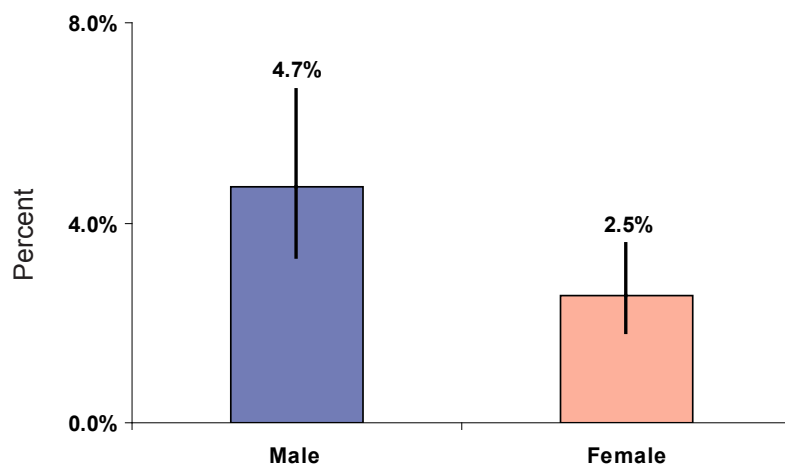
More than one third of students who ever reported asthma experienced an asthma episode or attack during the past 12 months.

## Occupational Asthma

Asthma in the workplace is a priority area for the Utah Asthma Program and Task Force as outlined in the Utah Asthma Plan. The outlined objective is “to promote awareness of asthma risk associated with social, economic, ethnic,

occupational and other related factors to reduce asthma morbidity and improve quality of life.” Tracking occupational asthma is accomplished through the the Behavioral Risk Factor Surveillance System.

Figure 31. Those Who Were Ever Told By a Doctor or Other Medical Person That Their Asthma Was Job-Related, Utah, Adults 18 and Over, 2004-2006.

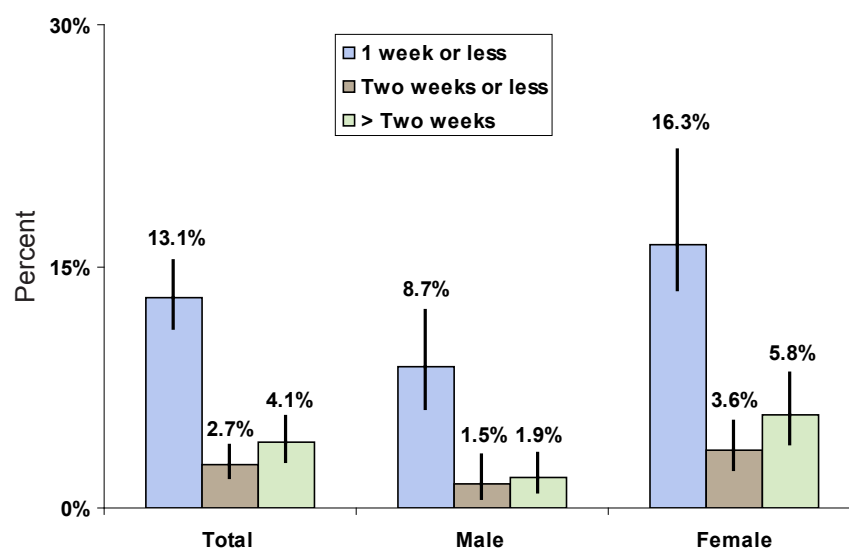


Source: Behavioral Risk Factor Surveillance System, age-adjusted rates, 2004-2006.

The percentage of those with asthma who reported in 2004-2006 that a health professional had ever told them their asthma was job-related was twice that for males as females.

## Occupational Asthma

Figure 32. Number of Weeks in the Past 12 Months Work or Usual Activities Were Limited Because of Asthma, Utah, Adults 18 and Over, 2003-2006.



Source: Behavioral Risk Factor Surveillance System, 2006, crude rates.

Nearly twice as many females (16.3%) than males (8.7%) reported that their work or usual activities were limited in the past 12 months for one week or less. It was the same for females (3.6%) and males (1.5%) who reported limitations for two weeks or less, and nearly three times (5.8% versus 1.9%) for work or activity limitations totaling more than two weeks in the past year.



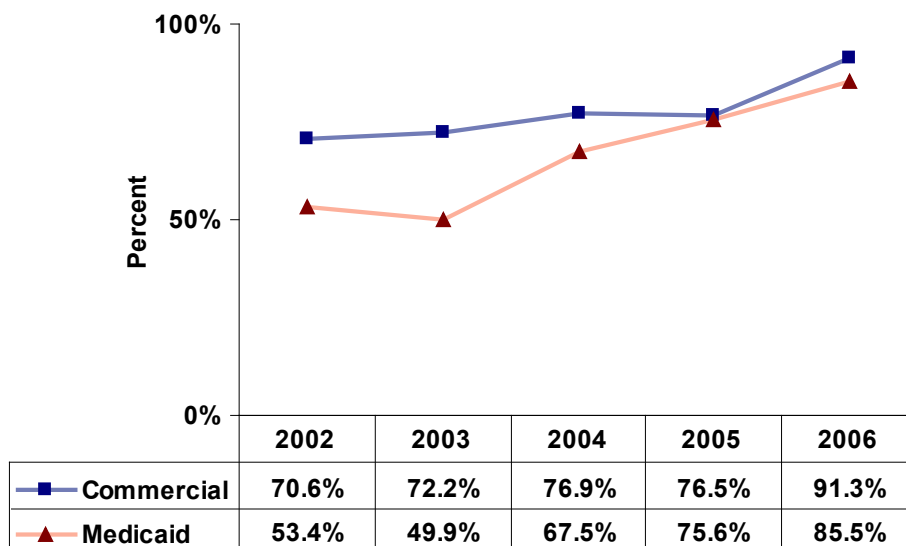
## Pharmacy Data

Data for asthma medications are provided through the Utah Pharmacy Data Initiative (UPDI), and asthma measures from the Health Plan Employer Data and Information Set (HEDIS). The Utah Asthma Program is also researching Medicaid databases for

additional information about asthma medications. These methods are helping to establish the current usage of medications by those who suffer from asthma. Following are HEDIS data that explain commercial and Medicaid insurance trends for the years 2002-2006.

## HEDIS and Other

Figure 33. HEDIS Measure: Use of Appropriate Medications for People With Asthma, Ages 5-56 Years, 2002-2006.



Source: Health Plan Employer Data and Information Set (HEDIS) 2002-2006.

Over the past five years, the percentage of patients who have filled their asthma medication prescriptions has risen among the health plans represented above.

## Medicaid Data

Data for the Utah Medicaid population have become increasingly important as part of efforts to identify vulnerable groups and better target interventions. Identifying patients with asthma within the Medicaid database has been difficult. However, efforts are underway to identify this

important group and explore avenues for data to guide interventions. Focusing on the Medicaid and similar populations is a major goal of the Utah Asthma Program and part of the renewed focus of the Utah Asthma Plan.

Some data have been provided through the Medicaid query system that shed light on some aspects of the asthma population. In 2003, of 1,133 emergency department visits by Medicaid patients with asthma (ICD-9 code 493), nearly two-thirds (62.1%) of these encounters had shown a follow-up visit to the physician within 30 days or less after the initial treatment at the emergency department. Half of these encounters (50.7%) showed a follow-up visit within the first two weeks following the visit to the emergency department. By three months post-ED visit, nearly one-fifth (18.7%) of the encounters showed no follow-up visit to a physician.

Due to limitations at this point, further data are not available regarding asthma prevalence for the Medicaid population. However, reference should be given to prevalence by income level in Figure 5, which shows that households with an income below \$20,000 per year have a higher prevalence of asthma.





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